REMARKS

The foregoing amendment is responsive to the Office Action mailed on November 20, 2002. Applicant's representative would like to initially thank Examiner Opsasnick for the courtesy he extended during the telephone interview conduced on December 18, 2002.

I. Summary of the Amendments

By the foregoing amendment, several typographical errors have been corrected in the specification. In addition, Claim 1 has been amended as discussed during the interview. Further, new Claims 39-55 have been added to the application.

The amendments to the specification and to Claim 1 are shown in redline form on the attached pages. No new matter has been added.

II. Art-based Rejection

The original independent claims of the application stand rejected as being anticipated by U.S. Patent 5,917,889 ("Brotman"). This reference involves techniques for more reliably capturing a string of characters specified by a user over a telephone. These techniques involve having the user both utter the characters and select the corresponding keys on the telephone keypad. The keypad entries and the utterances are then used in combination to predict the characters intended by the user. Unlike the disclosure of the present application, Brotman does not involve the processing of voice queries submitted by users to search a database or domain of items. In addition, Brotman does not disclose Applicant's methods for generating and selecting voice recognition grammars that specify valid utterances.

As discussed during the interview, Brotman does not disclose all of the limitations of any rejected independent claim. With respect to independent Claim 1, for example, Brotman does not disclose the processing of a "voice query for searching [a] domain of items." In addition, Brotman does not disclose "identifying a subset of items in the domain that correspond to the set of characters [received from the user];" and "generating a dynamic grammar based at least in part on the subset of items."

With respect to independent Claim 15, Brotman does not disclose "selecting a grammar which is derived from text extracted from a subset of items that correspond to the set of characters entered by the user." In addition, Brotman does not disclose "providing the grammar to a voice recognition system for use in interpreting the query as entered by the user by voice."

With respect to independent Claim 24, Brotman does not disclose "a query server which searches the database of items according to voice queries from users," and does not disclose the limitations specifying how the query server operates.

With respect to independent Claim 33, Brotman does not disclose "receiving a voice query from a user, and identifying a set of search result items that are responsive to the voice query." In addition, Brotman does not disclose any of the following steps: "providing the user an option to refine the query by adding an additional query term;" "generating a grammar by at least extracting text from the set of search result items," and "using the grammar to interpret an utterance by the user of an additional query term."

The foregoing are merely examples of claim limitations that are not disclosed by Brotman. Other distinguishing limitations are recited throughout the independent and dependent claims.

Because Brotman does not disclose all of the limitations of any rejected independent claim, Applicant respectfully submits that the art-based rejections of Claims 1-38 are improper.
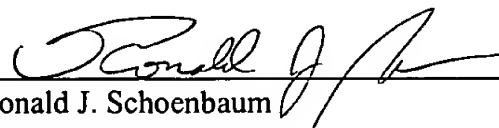
III.   Conclusion

In view of the foregoing, Applicant submits that the claims are patentably distinct from the cited art, and requests that the rejections be withdrawn.
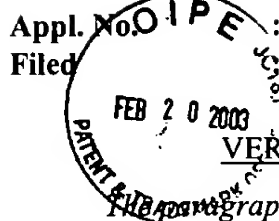
If any issues remain which can potentially be resolved by telephone, the Examiner is invited to call the undersigned attorney of record at his direct dial number listed below.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 2 - 14 - 03   By: _____
                                      Ronald J. Schoenbaum
                                      Registration No. 38,297
                                      Attorney of Record
                                      Customer No. 20,995
                                      (949) 721-2950

FEB 2 0 2003

<u>VERSION WITH MARKINGS TO SHOW CHANGES MADE</u>

The paragraph beginning at page 6, line 10 has been revised as follows:

Referring again to the character entry task (22) in Figure 1, the number of characters entered by the user is ideally sufficiently large to produce a grammar that falls below a certain size threshold, such as 5000 valid utterances. The number of characters needed to provide the desired grammar size will typically depend largely on (1) the number of items in the domain being searched, (2) the database field or fields used to generate the grammar from the subset of items (e.g., author only, subject only, author plus title plus subject, etc.), and (3) the particular method used to select valid utterances from the relevant fields. In some embodiments, the user may be prompted to enter a fixed number of characters (e.g., 1, 2, 3, or 4), with this number being selected based on the context of the search (e.g., the category and type of the search). In other embodiments, the user may be permitted to enter any desired number of characters. In addition, the system could calculate the grammar size in real time as the user enters the characters, and notify the user once the number of entered characters is sufficient to produce the desired grammar size.

The paragraph beginning at page 7, line 16 has been revised as follows:

Figure 2 illustrates a typical web site system in which the Figure 1 process may <u>be</u> embodied, and shows some of the components that may be added to the system to implement the process. In this system, users can browse the web site using either a conventional web browser (not shown) or using the site's voice interface. Users of the voice interface connect to the site by establishing a telephone connection to a conventional AVR system 50 from a mobile or landline telephone 51. The AVR system may, but need not, be local to the web server. As illustrated, the AVR system sends HTTP requests to the web server, and receives voiceXML pages from the web server.

The paragraph beginning at page 8, line 17 has been revised as follows:

Initially, a voiceXML page is sent to the AVR system prompting the user (by voice) to type in, and then say, the first N letters of an author's name (80). For example, if the user is searching for music titles by the artist Sting, the user might initially type "784" on the telephone keypad and then say the letters "STI." The AVR system uses each [the]keypad entry to narrow

-7-

the set of valid utterances associated with each spoken letter. For example, for the telephone digit "2," the AVR system would only recognize the letters A, B and C as valid utterances, rather than all twenty six letters of the alphabet. This method of character entry significantly reduces misinterpretations by the AVR system of characters having similar sounds.

Claim 1 has been revised as follows:

1. (Amended) A method for improving voice recognition accuracy when a user submits a query by voice to search a domain of items, the method comprising:

　　　　prompting a user to submit a set of characters of [the]a voice query for searching the domain of items, and receiving the set of characters from the user;

　　　　identifying a subset of items in the domain that correspond to the set of characters;

　　　　generating a dynamic grammar based at least in part on the subset of items, said grammar specifying valid utterances for interpreting the voice query;

　　　　prompting the user to submit the voice query, and receiving the voice query from the user; and

　　　　interpreting the voice query using the dynamic grammar.